

REMARKS

Claims 2, 5, 7-10, 15, 18, 20-22, 27-41 and 44-50 are pending in this application, of which claims 27-33 and 39-41 have been withdrawn from consideration. No new claims have been added.

Claims 2, 7-9, 15 and 20-22 stand rejected under 35 USC §102(b) as anticipated by JP Application 63266374 to Hiroshi (hereinafter "**Hiroshi**").

Applicants respectfully traverse this rejection.

Hiroshi discloses an integrated circuit device in which a through-hole 11a is provided through an insulating substrate 11, and a wiring board 10 is formed which includes a conductor exposed portion 12b on the opposite surface of an external connection terminal surface 12a of a conductor 12a. Then, an integrated circuit element 13 is mounted on the wiring board 10 at a predetermined position of the same opposite to the conductor 12 of the insulating substrate 11 through a connection member 14 comprising insulative resin, and an adhesive material 14 is heated and hardened for adhesion and fixation of the insulated circuit element. Further, there is performed electrical connection required for an input/output electrode 13a of the integrated circuit elements 13a and the conductor exposed portion 12b of the wiring board 10. Thereafter the integrated circuit element 13, a metal wire 15, and the one surface of the insulating substrate 11 are covered with sealing resin 16 for protection thereof.

It should be noted that conductor 12, corresponding to the metallic film of the present

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invention, covers only the bottom surface of the resin projection. This is in contrast to the present invention as shown, for example, in Fig. 32, in which the films 113 cover both the bottom and side surfaces of the resin projections.

Accordingly, claims 2, 5, 7, 15, 18, 20 and 21 have been amended to recite this distinction.

Furthermore, with regard to claims 15 and 20-22, Applicants submit that the recited feature of "said resin projections extending downwards from the mount-surface and laterally extending from at least one of the resin package" is not disclosed in Hiroshi.

Thus, the 35 USC §102(b) should be withdrawn.

Claim 10 stands rejected under 35 USC §102(b) as anticipated by JP Patent 218509 to Atsushi (hereinafter "Atsushi").

Applicants respectfully traverse this rejection.

Atsushi discloses an optical semiconductor device in which connecting parts 6 projecting from the resin portion are completely covered by conductor pattern 2.

Atsushi fails to disclose that the resin portion on which the chip is provided comprises a resin tape, as in the present invention. Accordingly, claim 10 has been amended to recite this distinction.

Thus, the 35 USC §102(b) rejection should be withdrawn.

Claims 37-38 and 44-50 stand rejected under 35 USC §103(a) as unpatentable over Hiroshi in view of Hosomi et al. (previously applied).

Applicants respectfully traverse this rejection.

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Hosomi et al. has been cited for teaching the formation of metallic films 3 comprising a plurality of stacked metallic layers but, like Hiroshi discussed above, fails to teach, mention or suggest the electrode forming a flush surface with the package body, as recited in claim 34, from which claims 37-38 depend.

Furthermore, neither of the applied references teaches, mentions or suggests that metallic films are provided on bottom and side surfaces of the resin projections, as in the present invention.

Accordingly, claims 44-46 have been amended to recite this distinction.

Thus, the 35 USC §103(a) rejection should be withdrawn.

In view of the aforementioned amendments and accompanying remarks, claims 2, 5, 7-10, 15, 18, 20-22, 27-41 and 44-50, as amended, are in condition for allowance, which action, at an early date, is requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE**".

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees which may be due with respect to this paper, may be charged to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosures: Version With Markings To Show Changes Made
Q:\FLOATERS\WLB\960942A amendment

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claims 2, 5, 7, 10, 15, 18, 20, 21 and 44-46 have been amended as follows:

2. (Twice Amended) A device comprising:

a chip;

a resin package sealing said chip, said resin package having resin projections located on a mount-side surface of the resin package, said projections projecting from a bottom surface of said device;

metallic films respectively provided to bottom and side surfaces of the resin projections;

and

connecting parts electrically connecting electrode pads of said chip and the metallic films, wherein each of said metallic films is a single layer made of a metallic substance.

5. (Twice Amended) A device comprising:

a chip;

a resin package sealing said chip, said resin package having resin projections located on a mount-side surface of the resin package, said projections projecting from a bottom surface of said device;

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metallic films respectively provided to bottom and side surfaces of the resin projections;

and

connecting parts electrically connecting electrode pads of said chip and the metallic films,

wherein:

said connecting parts respectively comprise bonding wires, and bonding balls

respectively provided to the metallic films; and

said bonding wires are bonded to said electrode pads and said bonding balls.

7. (Twice Amended) A device comprising:

a chip;

a resin package sealing said chip, said resin package having resin projections located on a
mount-side surface of the resin package, said projections projecting from a bottom surface of said
device;

metallic films respectively provided to bottom and side surfaces of the resin projections;

and

connecting parts electrically connecting electrode pads of said chip and the metallic films,

wherein said resin package includes a first resin portion on which the chip is provided,

and a second resin portion which covers the chip.

10. (Amended) A device comprising:

a chip;

a resin package sealing said chip and having a first resin portion and a second resin portion, said first resin portion comprising a resin tape and said chip being provided on said first resin portion and covered by said second resin portion;

connecting parts having bonding wires and connection electrodes, said connection electrodes being provided on the first resin portion and projecting therefrom; and metallic films respectively provided to the connection electrodes of said connecting parts.

15. (Twice Amended) A device comprising:

a chip;

a resin package sealing said chip, said resin package having resin projections located on a mount-side surface of the resin package, said resin projections extending downwards from the mount-side surface and laterally extending from at least one side surface of the resin package;

metallic films respectively provided to bottom and side surfaces of the resin projections;

and

connecting parts electrically connecting electrode pads of said chip and the metallic films, wherein each of said metallic films is a single layer made of a metallic substance.

18. (Twice Amended) A device comprising:

a chip;

a resin package sealing said chip, said resin package having resin projections located on a mount-side surface of the resin package, said resin projections extending downwards from the mount-side surface and laterally extending from at least one side surface of the resin package; metallic films respectively provided to bottom and side surfaces of the resin projections;

and

connecting parts electrically connecting electrode pads of said chip and the metallic films, wherein:

said connecting parts respectively comprise bonding wires, and bonding balls respectively provided to the metallic films; and

said bonding wires are bonded to said electrode pads and said bonding balls.

20. (Twice Amended) A device comprising:

a chip;

a resin package sealing said chip, said resin package having resin projections located on a mount-side surface of the resin package, said resin projections extending downwards from the mount-side surface and laterally extending from at least one side surface of the resin package;

metallic films respectively provided to bottom and side surfaces of the resin projections;

and

connecting parts electrically connecting electrode pads of said chip and the metallic films, wherein said resin projections laterally extend from a plurality of side surfaces of said

resin package.

21. (Twice Amended) A device comprising:

a chip;

a resin package sealing said chip, said resin package having resin projections located on a mount-side surface of the resin package, said resin projections extending downwards from the mount-side surface and laterally extending from at least one side surface of the resin package; metallic films respectively provided to bottom and side surfaces of the resin projections;

and

connecting parts electrically connecting electrode pads of said chip and the metallic films, wherein said resin projections laterally extend from only one side surface of said resin package.

44. (Twice Amended) A device comprising:

a chip;

a resin package sealing said chip, said resin package having resin projections located on a mount-side surface of the resin package, said projections projecting from a bottom surface of said device;

metallic films respectively provided to bottom and side surfaces of the resin projections;

and

connecting parts electrically connecting electrode pads of said chip and the metallic films,

wherein:

said connecting members respectively comprise bumps provided between the electrode pads of the chip and the metallic films.

45. (Twice Amended) A device comprising:

a chip;

a resin package sealing said chip, said resin package having resin projections located on a mount-side surface of the resin package, said projections projecting from a bottom surface of said device;

metallic films respectively provided to bottom and side surfaces of the resin projections;

and

connecting parts electrically connecting electrode pads of said chip and the metallic films,

wherein:

said metallic films respectively have lead portions, which are sealed by the resin package and extend toward the chip; and

said connecting parts include bumps provided between the electrode pads of the chip and the lead portions of the metallic films.

46. (Twice Amended) A device comprising:

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a chip;

a resin package sealing said chip, said resin package having resin projections located on a mount-side surface of the resin package, said projections projecting from a bottom surface of said device;

metallic films respectively provided to bottom and side surfaces of the resin projections;

and

connecting parts electrically connecting electrode pads of said chip and the metallic films, wherein:

said metallic films respectively have lead portions, which are sealed by the resin package and extend toward the chip, said lead portions having recess portions; and

said connecting parts include bumps, which are positioned in said recess portions and are provided between the electrodes pads of the chip and the lead portions of the metallic films.